

Amendments to the Specification:

Please replace paragraph [0029] with the following:

After having read the position at the third wedge 324, the read/write channel 146 writes a burst pattern, such as burst 'A', in the track that the write element 306 is positioned over at write operation 206. For example, when the reader 308 is positioned on track boundary k-5 to read the third wedge 324, the writer 306 writes 'A' bursts for the first servo wedge 320 and second servo wedge 322 on the track defined by track boundaries k and k+1 of either the sector position 302 or sector position 304 depending upon the direction of rotation of the disc 108. On a preceding or subsequent track, the 'B' burst would be written for the servo wedges 320, 322 as shown for the track defined by boundaries k+1 and k+2. Thus, write operation 206 alternates the particular guide wedge to be written from one track to the next. Write operation 206 also writes the fourth servo wedge ~~235~~ 325 at a time other than when the first wedge position 320, second wedge position 322, and third wedge position 324 are under head 118 so that the radially continuous fourth servo wedge 325 is available for track following during normal operation.

Please replace paragraph [0035] with the following:

After reading the second servo wedge 322, servo wedges three 324 and one 320 are written at write operation 224. However, either wedge three 324 or wedge one 320 will be written first in the next adjacent sector during this iteration depending upon the directional rotation of the disc 108. Thus, the first sector of this track where wedge two 322 is read will become the last sector to write to because either wedge one 320 or wedge three 324 or the fourth radially continuous wedge 325 of the first sector of this track will not yet have been written, depending upon the rotational direction. As shown,

2
3
the 'B' burst is written for the outermost track of set 314. As discussed above, write operation 224 writes a fourth radially continuous servo wedge 325 for each sector of each track that is later used for track following during normal operation.

Please replace paragraphs [0042-0049] with the following:

In conclusion, an embodiment of the present invention may be viewed as a method (such as 170) of servowriting in a disc drive (such as 100) having a head (such as 118) with an offset between a read element (such as 308) and a write element (such as 306). The method involves, a) during an instance of a first sector position (such as 302) passing by the head, reading (such as 202) a ~~first~~ third servo wedge (such as 324) on a first track (such as k-5) with the read element. The method further involves, during the instance of the first sector position passing by the head, and not during reading step (a), writing (such as 206) ~~a second (such as 322) and third servo wedge (such as 320) one or more servo wedges (such as 320, 322, 325)~~ on a second track (such as k\k+1) with the write element.

3
The method (such as 170) may further involve, (c) during one revolution of a disc (such as 108) of the disc drive (such as 100), repeating reading step (a) (such as 202) and writing step (b) (such as 206) for all sector positions of the track (such as k\k+1). The method may further involve, (d) prior to reading step a) and writing step b), writing (such as 160), with a Servo Track Writer, servo wedges for a number of adjacent tracks (such as 310) greater than or equal to the offset between the read element (such as 308) and write element (such as 306). ~~The method may further involve, (e) during the instance of the first sector position passing by the head, and not during reading step a) or writing step b), writing (such as 206) a fourth servo wedge 325.~~ The method may also further involve f) recording (such as 204) a head position determined from reading step a) relative to an ideal track center.

In the plurality of sectors (such as 304) other than the first sector (such as 302) the third The first servo wedge (such as 324) may be read before the ~~second~~ first (such as ~~322 320~~ 320 322) and ~~third~~ second servo wedges (such as ~~320 322~~ 320 322) are written, ~~such as where the read element 308 reads the servo wedge 324, which may be considered the first servo wedge in this context, and writer 306 writes the servo wedges 320 and 322.~~ The

first second servo wedge (such as 322) may be read after the ~~second~~ first servo wedge (such as ~~324~~ 320) is written but before the third servo wedge (such as ~~320~~ 324) is written, ~~such as where the read element 308 reads the servo wedge 322, which may be considered the first servo wedge in this context, and writer 306 writes the servo wedges 320 and 324.~~ The first servo wedge (such as 320) may be read ~~after~~ before the second (such as 322) and third servo wedges (such as 324) are written, ~~such as where the read element 308 reads the servo wedge 320, which may be considered the first servo wedge in this context, and writer 306 writes the servo wedges 322 and 324.~~ In an opposite direction of the disc (such as 108) these orders are reversed.

3
Q The reading step (a) (such as 202) may involve a)(1) reading the first servo wedge (such as ~~324~~) before the second (such as ~~322~~) and third wedges (such as ~~320~~) are written, a)(2) reading the first servo wedge (such as ~~322~~) after the second servo wedge (such as ~~324~~) is written but before the third servo wedge (such as ~~320~~) is written, or a)(3) reading the first servo wedge (such as ~~320~~) after the second (such as ~~322~~) and third servo wedges (such as ~~324~~) are written. The method (such as 160) may further involve (g) finding (such as 218) a head offset, (h) performing reading step a) (such as 202) and writing step b) (such as 206) for all the sector positions on a track according to either reading step a)(1), reading step a)(2), or reading step a)(3), (i) seeking (such as 210) the head (such as 118) one track, (j) repeating performing step (h) and seeking step (i) a set of repetitions equal to the head offset, and (k) repeating step (g) through step (j) for all tracks using reading step a)(1), reading step a)(2), or reading step a)(3) but not the reading step a)(1), reading step a)(2), or reading step a)(3) used in an immediately preceding two sets of repetitions.

An embodiment of the present invention may also be viewed as a disc drive (such as 100) that writes servo wedges (such as 320, 322, and 324 and 325). The disc drive includes one or more discs (such as 108) having a plurality of tracks divided into a plurality of sector positions (such as 302, 304). A head (such as 118) has a read element (such as 308) and a write element (such as 306) separated by an offset. A read/write channel (such as 146) is in electrical communication with the read element and the write element. During an instance of a first sector position (such as 302) passing by the head, the read/write channel reads a ~~first~~ third servo wedge (such as 324) on a first track (such as k-5) with the read element, and during the instance of the first sector position passing by the head and not during reading of the first servo wedge, the read/write channel

writes a ~~second~~ first (such as ~~322~~ 320) and ~~third~~ second servo wedge (such as ~~320~~ 322) on a second track with the write element.

During one revolution of the one or more discs of the disc drive, the read/write channel (such as 146) may repeat reading the ~~first~~ third servo wedge (such as 324) and writing the ~~second~~ first (such as ~~322~~ 320) and ~~third~~ second servo wedges (such as ~~320~~ 322) for all sector positions (such as 302, 304) of the track. At least three servo wedges (such as 320, 322, and 324) may be located in each sector position for a number of adjacent tracks (such as 310) equal to the offset between the read element (such as 308) and write element (such as 306). During the instance of the first sector position (such as 302) passing by the head (such as 118), and not during reading of the ~~first~~ third servo wedge or writing of the ~~second~~ first and ~~third~~ second servo wedges, the read/write channel may write a fourth servo wedge (such as 325) for the first sector position.

3
Q The disc drive (such as 100) may include memory (such as 143) in electrical communication with the read/write channel (such as 146), and the memory records a head position relative to an ideal track center determined from the read/write channel reading the ~~first~~ third servo wedge (such as 324). The read/write channel may read the ~~first~~ third servo wedge before writing the ~~second~~ first (such as ~~322~~ 320) and ~~third~~ second servo wedges (such as ~~320~~ 322). The read/write channel may read the ~~first~~ second servo wedge (such as 322) after writing the ~~second~~ first servo wedge (such as ~~324~~ 320) but before writing the third servo wedge (such as ~~320~~ 324). The read/write channel may read the first servo wedge (such as 320) ~~after~~ before writing the second (such as 322) and third servo wedges (such as 324).

The disc drive (such as 100) may also include an actuator (such as 110) for positioning the head (such as 118) and may include a processor (such as 142) in communication with the read/write channel (such as 146). The processor may be configured to find a head offset from the read/write channel reading the ~~first~~ third servo wedge (such as 324), and the processor may be further configured to cause the actuator to seek the head one track after the ~~second~~ first (such as ~~322~~ 320) and ~~third~~ second servo wedges (such as ~~320~~ 322) have been written for all sector positions (such as 302, 304) of a track, and further configured to cause the read/write channel to switch to a different

23

order of reading and writing for each sector position after reading the ~~first~~ servo wedge and writing ~~second and third~~ two or more servo wedges according to a first order for a number of tracks equal to the head offset.
